

Name: _____

p1029: Box multiplication of linear binomials (v17)

Example

Use the box method to multiply $(6x + 3)$ and $(2x + 4)$.

| * | $6x$ | 3 | |
|------|---------|------|-------------------------|
| $2x$ | $12x^2$ | $6x$ | $12x^2 + 6x + 24x + 12$ |
| 4 | $24x$ | 12 | Combine like terms. |
| | | | $12x^2 + 30x + 12$ |

ANSWER: $12x^2 + 30x + 12$

Question 1

Use the box method to multiply $(3x + 2)$ and $(7x + 5)$.

| * | $3x$ | 2 | |
|------|---------|-------|--|
| $7x$ | $21x^2$ | $14x$ | |
| 5 | $15x$ | 10 | |

ANSWER: $21x^2 + 29x + 10$

Question 2

Use the box method to multiply $(8x - 9)$ and $(-6x + 3)$.

| | | |
|-------|----------|-------|
| * | $8x$ | -9 |
| $-6x$ | $-48x^2$ | $54x$ |
| 3 | $24x$ | -27 |

ANSWER: $-48x^2 + 78x - 27$

Question 3

Use the box method to multiply $(-2x + 3)$ and $(-7x + 5)$.

| | | |
|-------|---------|--------|
| * | $-2x$ | 3 |
| $-7x$ | $14x^2$ | $-21x$ |
| 5 | $-10x$ | 15 |

ANSWER: $14x^2 - 31x + 15$